

Fig. 1<sub>a</sub>: "Soft-In Soft-Out" -Decoder

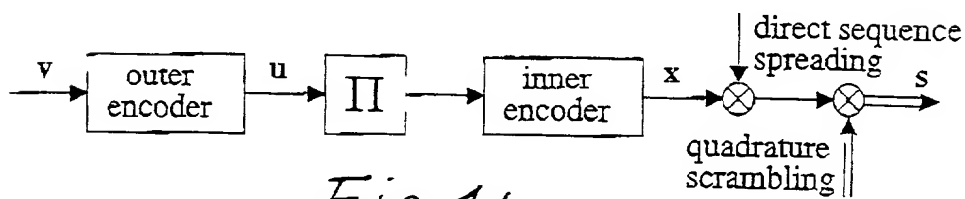


Fig. 1b

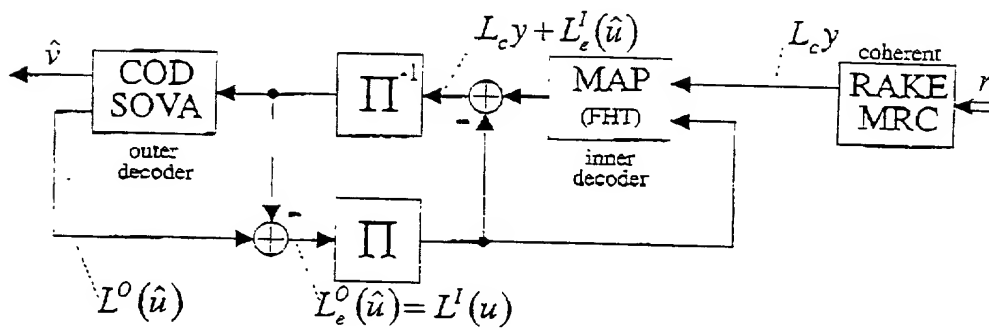


Fig. 2

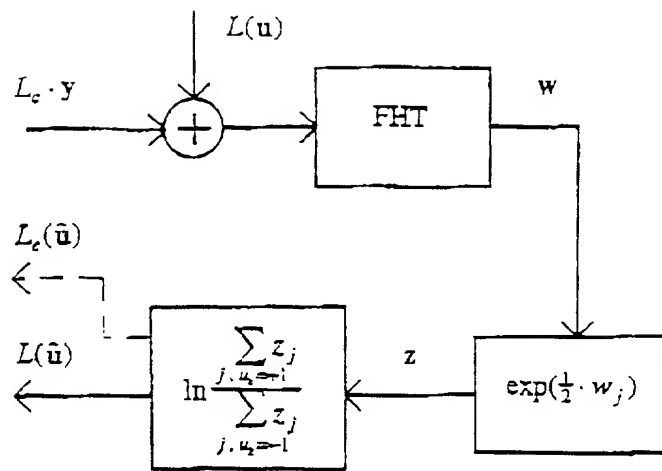


Fig. 3 : Decoderstruktur für den inneren Hadamard-Code

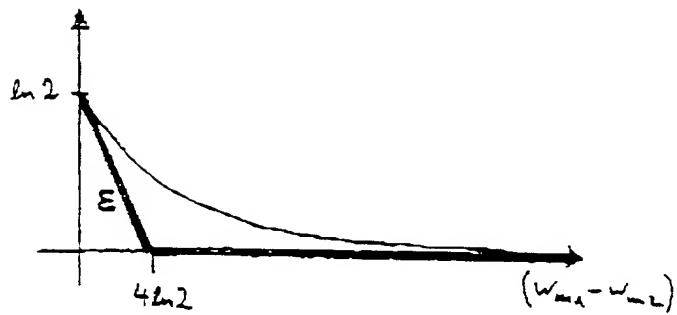


Fig. 4 : Verdeutlichung der Näherung für  $\epsilon$

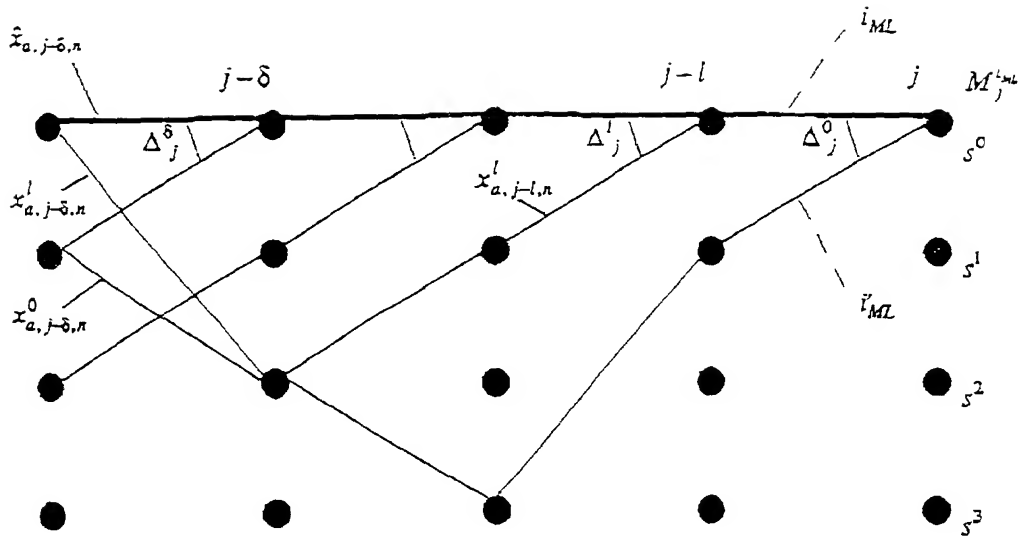


Fig.5: Trellisdiagramm mit verworfenen Pfaden entlang des Maximum-Likelihood-Pfades

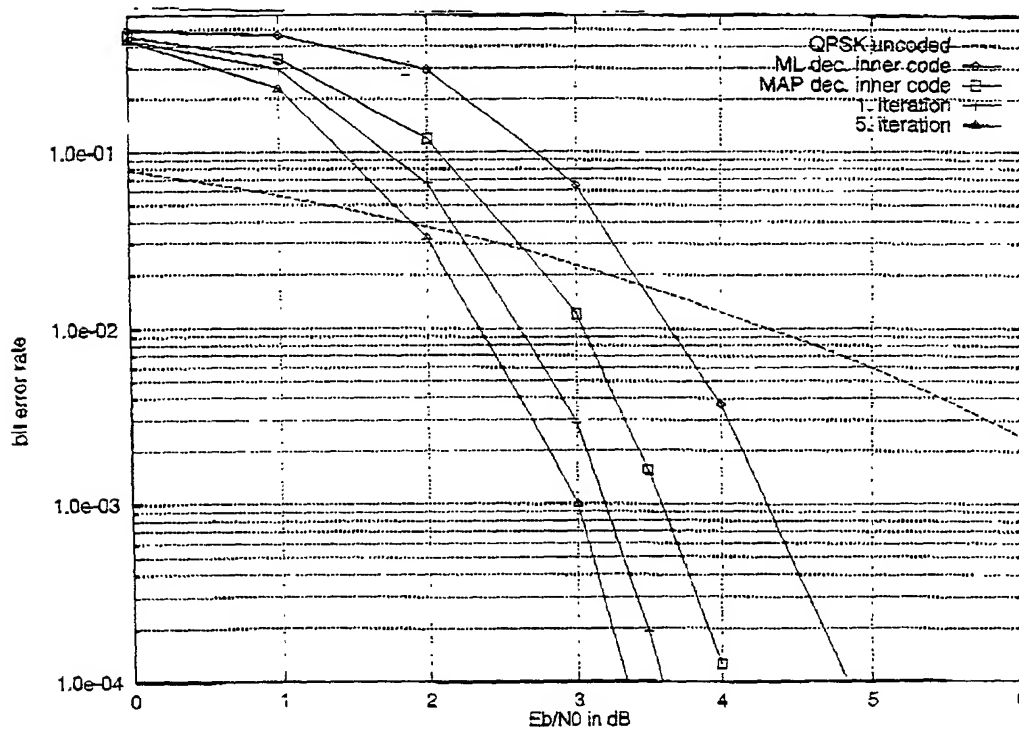


Fig.6

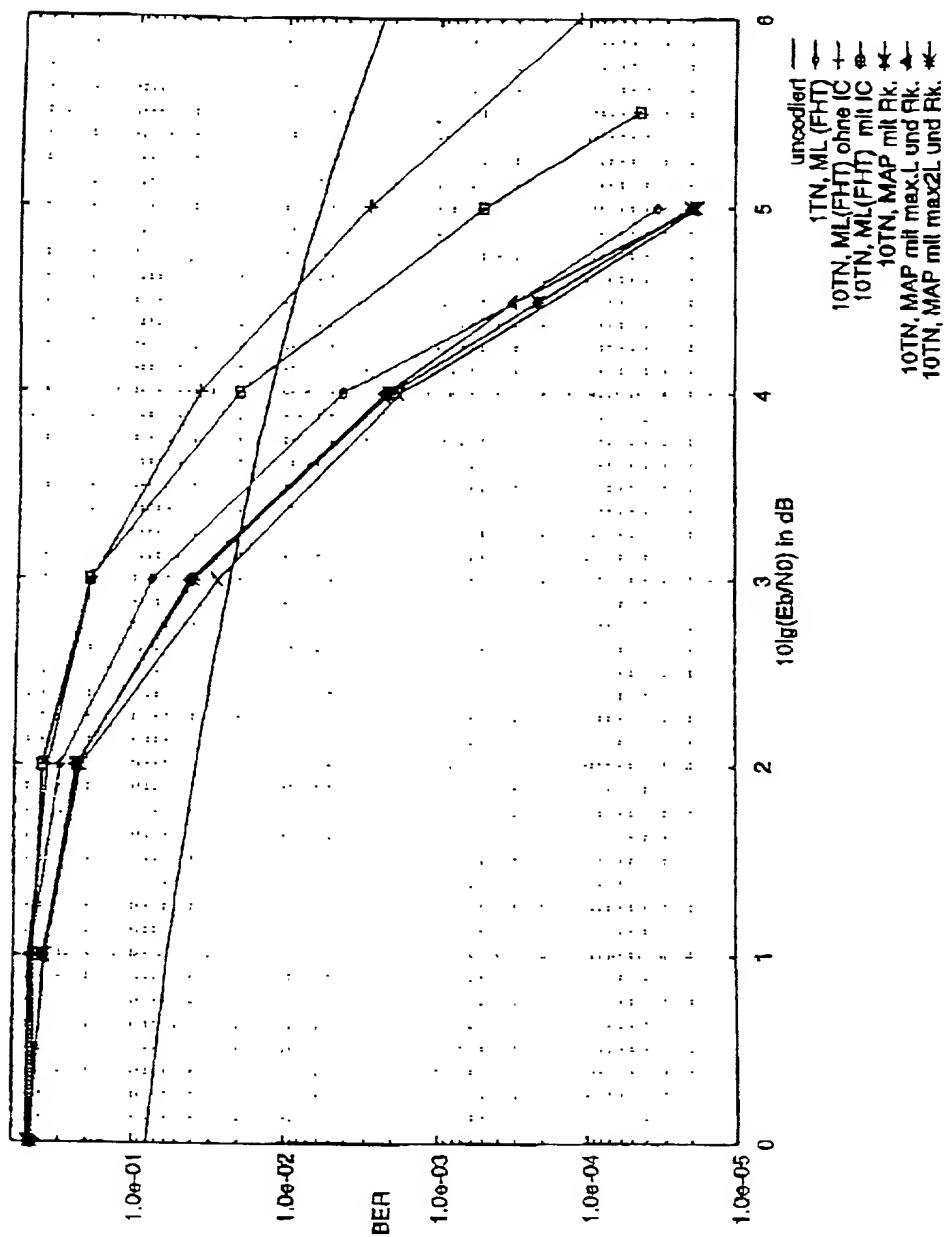


Fig. 7: Vergleich der IC mit einem System mit MAP-Decodierung, mit Verwendung der

Vereinfachung, AWGN,  $U=10$ ,  $J_{ges}=128$

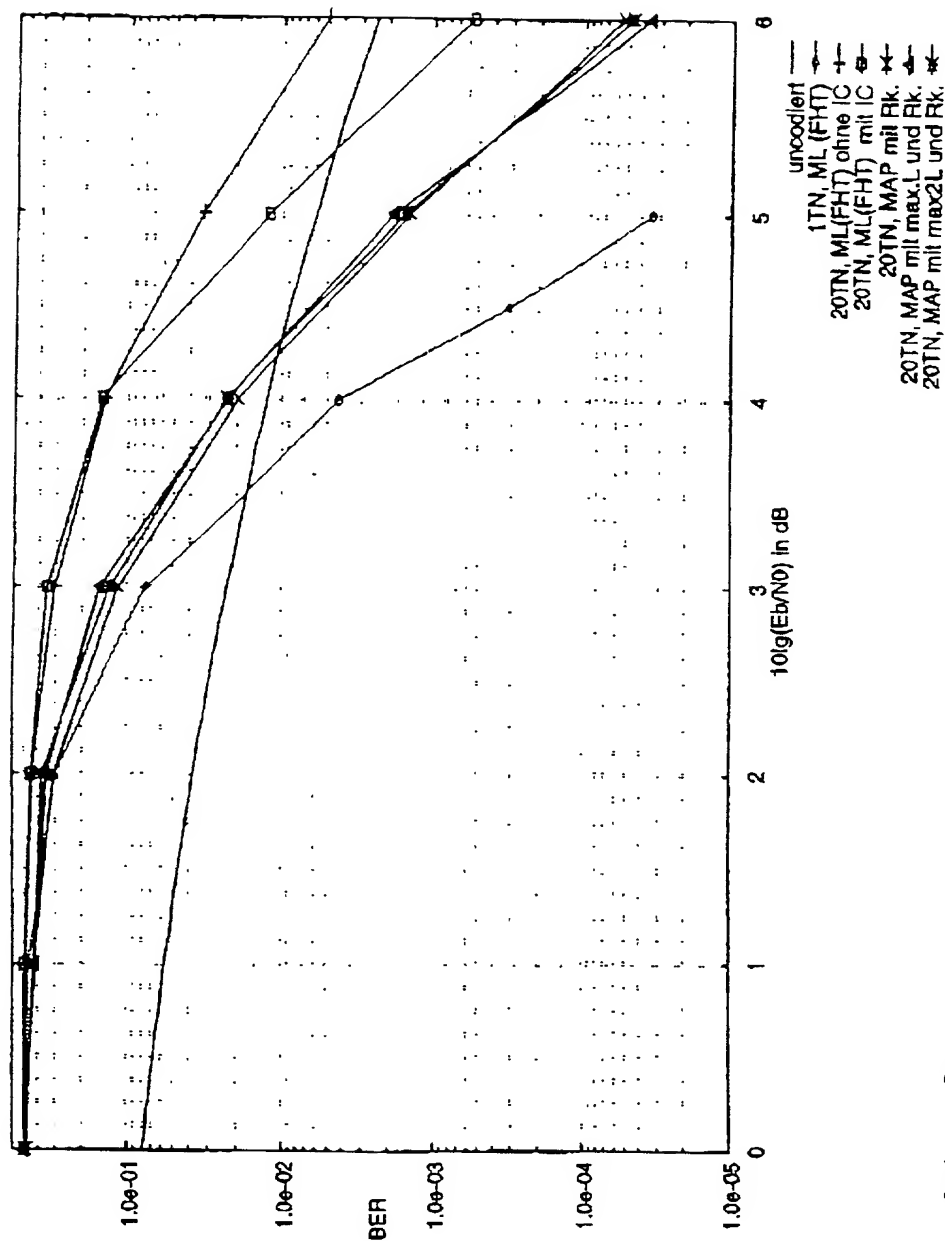


Fig. 8 : Vergleich der IC mit einem System mit MAP-Decodierung, mit Verwendung der

Vereinfachung, AWGN,  $U=20$ ,  $J_{ges}=128$

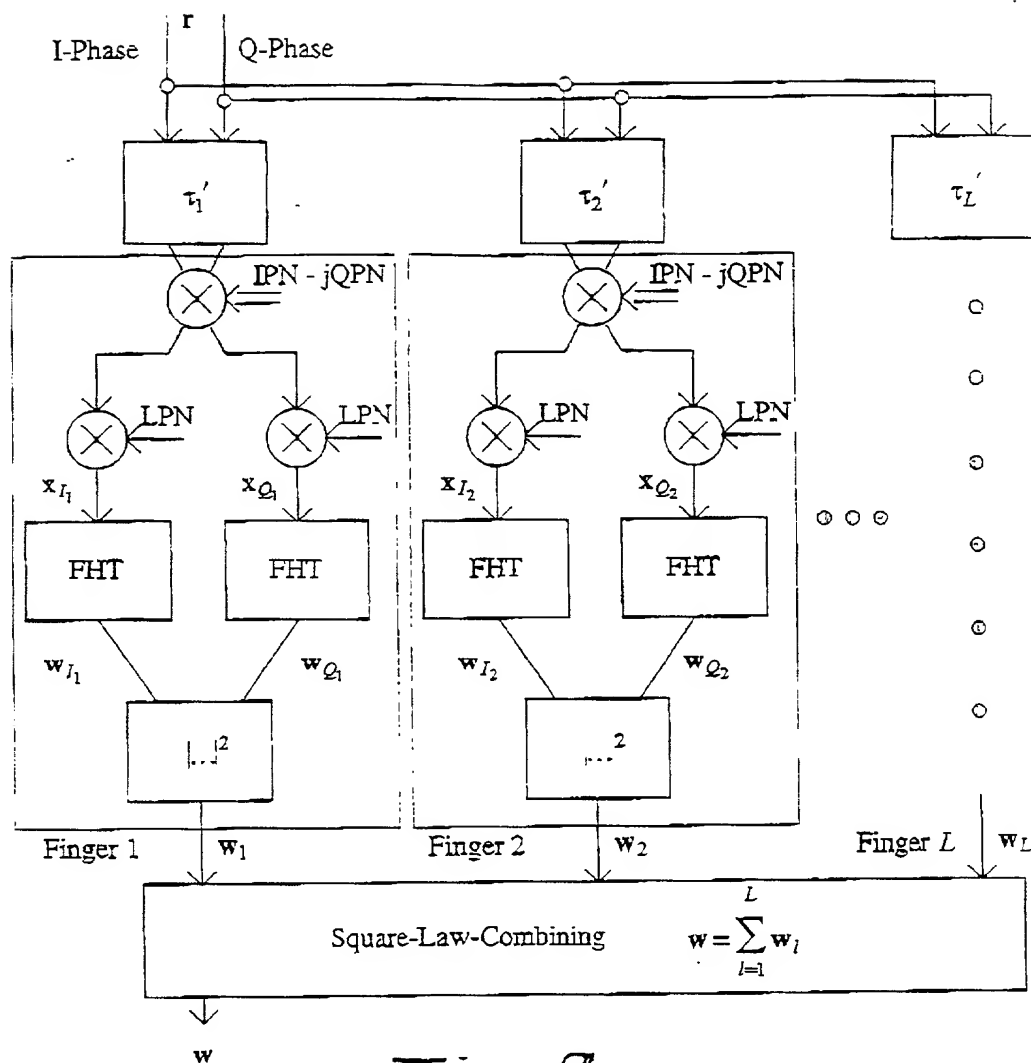


Fig. 9

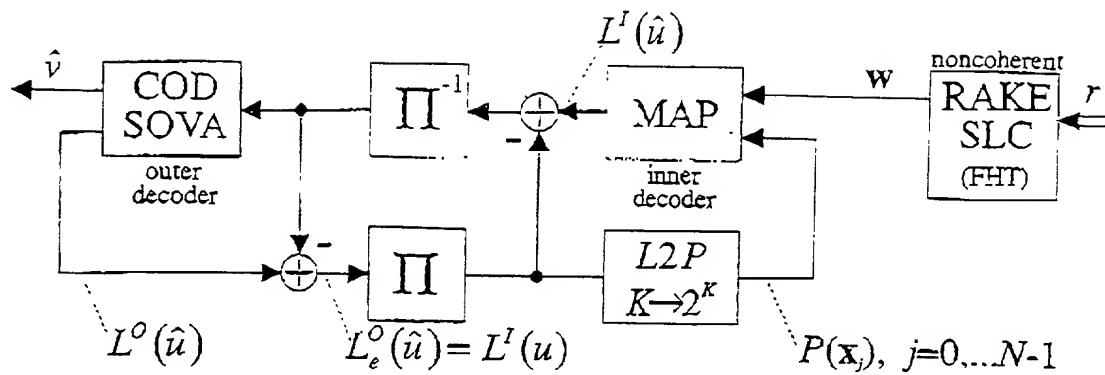
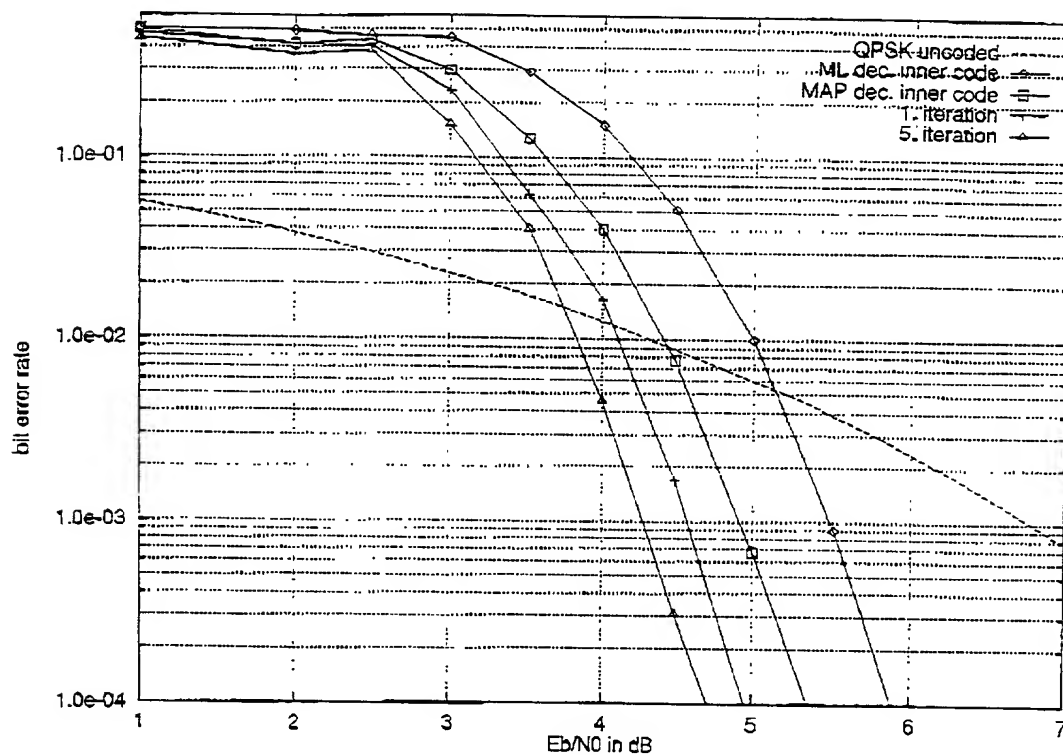


Fig. 10



Simulation results for the noncoherent RAKE receiver.

Fig. 11

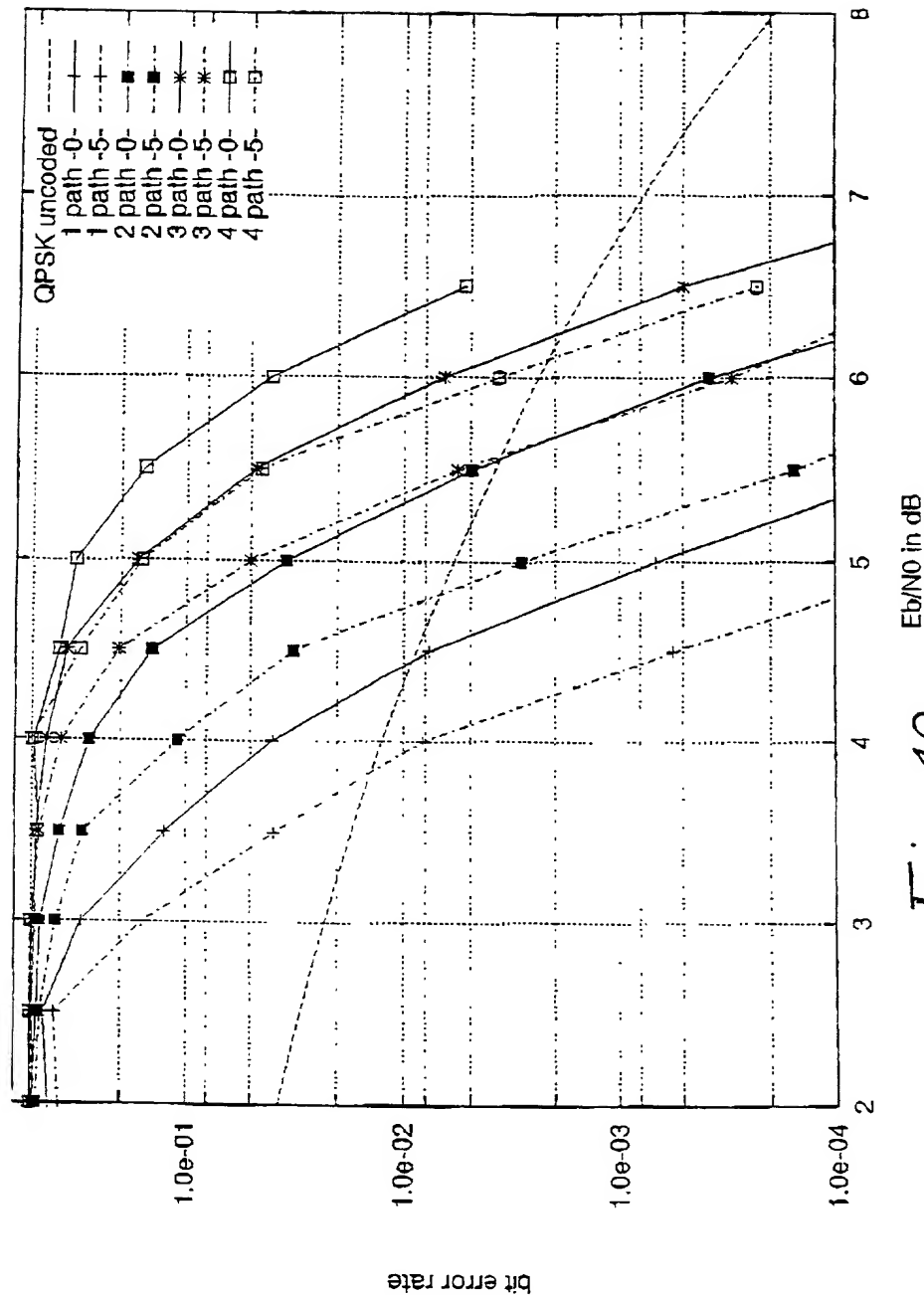


Fig.12

Simulation results for the noncoherent RAKE receiver with several static multipath channels and MAP

decoding without (-0-) and after the 5th iteration (-5-).